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April 2.—*Tethys* n. On line between $8^{h}\,50^{m}$ and $8^{h}\,55^{m}$. Past at 9^{h}.

April 16.—*Rhea* n. Not up at $9^{h}\,50^{m}$. Up between $9^{h}\,55^{m}$ and $10^{h}\,5^{m}$. Past at $10^{h}\,10^{m}$.

April 17.—*Tethys* n. On line between $11^{h}\,20^{m}$ and $11^{h}\,25^{m}$. *Saturn* very low; satellite not well seen.

April 18.—*Dione* s. On line between $8^{h}\,27^{m}$ and $8^{h}\,37^{m}$. Not well seen.

Tethys s. Judged on line between $9^{h}\,57^{m}$ and $10^{h}\,6^{m}$. Bad sky.

April 19.—*Tethys* n. In conjunction between $8^{h}\,40^{m}$ and $8^{h}\,50^{m}$. Planet low.

1890, March 29.—*Rhea* s. Not up at $8^{h}\,35^{m}$. Past at $8^{h}\,43^{m}$.

March 30.—*Enceladus* not seen.

April 2.—*Dione* n. Not up at $8^{h}\,55^{m}$. Past at $9^{h}\,3^{m}$.

Tethys in contact with the ball about 9^{h} (?). Uncertain.

April 3.—*Tethys* disappeared at the ball about $8^{h}\,50^{m}$.

April 4.—*Tethys*. Saw it well at $7^{h}\,30^{m}$ and $7^{h}\,40^{m}$ moving up to the ball. Could not see it at 8^{h}.

April 7.—*Rhea* s. Not up at $9^{h}\,15^{m}$. Past at $9^{h}\,20^{m}$. Could not see *Enceladus* for some time. In conjunction, east, between $12^{h}\,45^{m}$ and $12^{h}\,50^{m}$.

April 8.—Watched for the conjunction of *Dione* and *Japetus*. Clouds prevented observation, but saw the satellites $10'' \pm$ apart about 9^{h}.

May 13.—*Dione* n. In conjunction about $10^{h}\,15^{m}$

Occultations of stars by the Moon observed with the $9\frac{1}{3}$-inch Cooke refractor. Power 240:—

1887, February 6.—3 *Cancri*. Disappearance $9^{h}\,16^{m}\,32^{s}$, G.M.T.

April 2.—B.A.C. 2,731. Disappearance $9^{h}\,15^{m}\,12^{s}$, G.M.T.

October 24.—θ *Capricorni*. Reappearance $5^{h}\,51^{m}\,31^{s}$, G.M.T.

October 28.—B.A.C. 81. Disappearance $11^{h}\,24^{m}\,7^{s}$, G.M.T.

1888, October 13. 20 *Capricorni*. Disappearance $7^{h}\,7^{m}\,15^{s}$, G.M.T.

1889, January 18.—θ *Libræ*. Disappearance $10^{h}\,50^{m}\,28^{s}$, G.M.T.

February 9.—i *Tauri*. Disappearance $6^{h}\,48^{m}\,41^{s}$, G.M.T. Reappearance $7^{h}\,56^{m}\,39^{s}$, G.M.T.

February 12.—63 *Geminorum*. Disappearance $7^{h}\,47^{m}\,49^{s}$, G.M.T.

1890, April 30.—ν *Virginis*. Disappearance $11^{h}\,53^{m}\,27^{s}$, G.M.T.

August 28.—37 *Capricorni*. Disappearance $11^{h}\,19^{m}\,14^{s}$, G.M.T.

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Phenomena of Jupiter's Satellites observed with the $9\frac{1}{3}$-inch Cooke Refractor.

	Satellite.	Phenomena.		G.M.T.			Remarks.
1885.				h	m	s	
Apr. 5	I.	Tr. I.	First contact	9	33		Much cloud.
	I.	Sh. I.	Just within	10	34		Much cloud.
17	II.	Sh. I.	Bisection	8	21		Good sky.
			Inner contact	8	23		
	II.	Tr. E.	Inner contact	8	57		
			Bisection	8	59½		
			Outer contact	9	0		
	II.	Sh. E.	Inner contact	11	14		Not well seen.
18	III.	Sh. E.	Inner contact	8	35		
			Just off	8	37		
	IV.	Tr. E.	Inner contact	11	30		Satellite like a dark spot from 7 P.M. till egress.
25	III.	Sh. I.	Just within	9	4		Shadow looked small and dark. At 9.30 it was dark and larger.
26	II.	Ec. R.	First seen	8	59	23	Full brightness, $9^h\ 4^m$.
27	IV.	Ec. R.	First seen	8	35	39	
May 2	III.	Tr.	Ingress not seen				The satellite was dark during transit, but not black.
6	I.	Oc. D.	First contact	8	31		
13	IV.	Oc. D.	First contact	9	27		Fair definition.
			Bisection	9	29		
			Just gone	10	1		
	I.	Oc. D.	First contact	10	24		
			Bisection	10	26		
			Disappeared	10	28½		
	III.	Ec. R.	First seen	10	37	7	Full brightness, $10^h\ 41^m \pm$.
14	I.	Tr. E.	Inner contact	10	5		
			Half off	10	7		
			Outer contact	10	9		
20	III.	Oc. R.	First seen	9	30		Definition not good.
			Just off	9	32½		
	III.	Ec. D.	Fading	11	10		
			Half gone	11	12		
			Last seen	11	15		Or $11^h\ 14^m\ 46^s$.
26	II.	Sh. I.	Bisection	10	43½		Clouds pass. Planet low. Mr. Crossley at telescope.
			Just within	10	44½		
	II.	Tr. E.	Just off	10	6		Planet low.

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